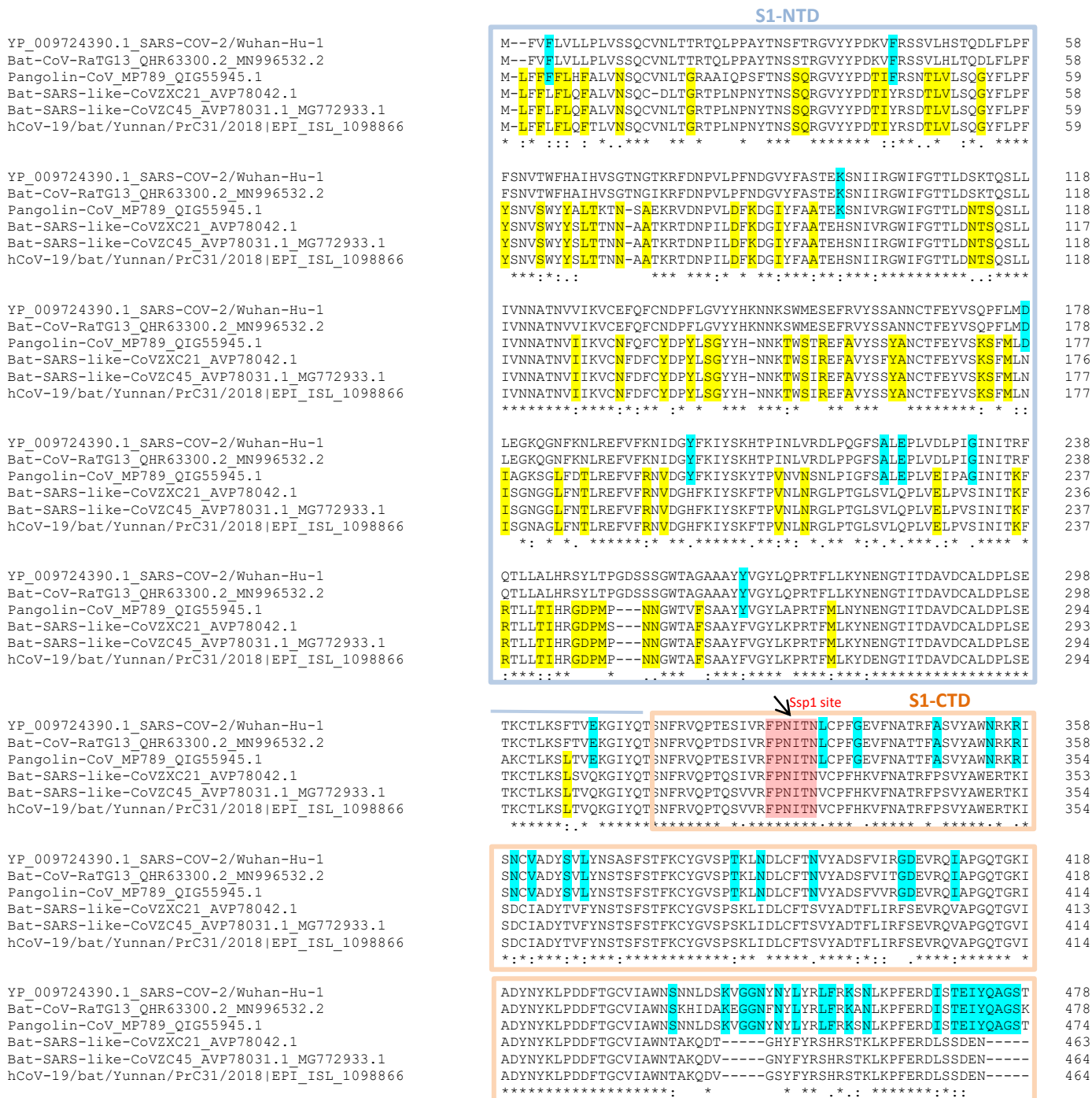


Figure S4. A multiple sequence alignment of the spike protein from pangolin-CoV_MP789 and representative CoV strains from SARS-CoV-2 and CoVZC/PrC31 clusters showing the chimeric nature of MP789 sequence. In this alignment, the polymorphic positions where the sequence of pangolin CoV_MP789 is identical to that of CoVZC/PrC31 cluster of viruses are highlighted in yellow, whereas the polymorphic positions where the sequence of pangolin-CoV_MP789 is similar to SARS-CoV-2r viruses are highlighted in blue. Location containing Ssp1 restriction site is highlighted with red box and labelled.



YP_009724390.1_SARS-COV-2/Wuhan-Hu-1 PAICHDGKAHFPRREGVFSVNGTHWFVTQRNFYEPQIIITDNTFVSGNCDVVIGIVNNTVY 1138
Bat-CoV-RaTG13_QHR63300.2_MN996532.2 PAICHDGKAHFPRREGVFSVNGTHWFVTQRNFYEPQIIITDNTFVSGCDVVIGIVNNTVY 1134
Pangolin-CoV_MP789_QIG55945.1 PAICHEGKAHFPRREGVFSVNGTHWFVTQRNFYEPQIIITDNTFVSGCDVVIGIVNNTVY 1130
Bat-SARS-like-CoVZXC21_AVP78042.1 PAICHEGKAHFPRREGVFSVNGTHWFVTQRNFYEPQIIITDNTFVSGNCDVVIGIINNTVY 1110
Bat-SARS-like-CoVZC45_AVP78031.1_MG772933.1 PAICHEGKAHFPRREGVFSVNGTHWFVTQRNFYEPKIIITDNTFVSGNCDVVIGIINNTVY 1111
hCoV-19/bat/Yunnan/PrC31/2018|EPI_ISL_1098866 PAICHDGKAHFPRREGVFSVNGTHWFITQRNFYEPQIIITDNTFVSGNCDVVIGIVNNTVY 1111
*****:*****:*****:*****:***** *****:*****

YP_009724390.1_SARS-COV-2/Wuhan-Hu-1 DPLQPELDSFKEELDKYFKNHTSPDIDLGDISGINASVVNIQKEIDRLNEVAKNLNESLI 1198
Bat-CoV-RaTG13_QHR63300.2_MN996532.2 DPLQPELDSFKEELDKYFKNHTSPDIDLGDISGINASVVNIQKEIDRLNEVAKNLNESLI 1194
Pangolin-CoV_MP789_QIG55945.1 DPLQPELDSFKEELDKYFKNHTSPDIDLGDISGINASVVNIQKEIDRLNEVAKNLNESLI 1190
Bat-SARS-like-CoVZXC21_AVP78042.1 DPLQPELDSFKEELDKYFKNHTSPDIDLGDISGINASVVNIQKEIDRLNEVARNLNESLI 1170
Bat-SARS-like-CoVZC45_AVP78031.1_MG772933.1 DPLQPELDSFKEELDKYFKNHTSPDIDLGDISGINASVVNIQKEIDRLNEVARNLNESLI 1171
hCoV-19/bat/Yunnan/PrC31/2018|EPI_ISL_1098866 DPLQPELDSFKEELDKYFKNHTSPDIDLGDISGINASVVNIQKEIDRLNEVARNLNESLI 1171
*****:*****:*****:*****:***** *****:*****

YP_009724390.1_SARS-COV-2/Wuhan-Hu-1 DLQELGKYEYIKWPWYIWLGFIAGLIAIVMVTIMLCCMTSCCSCLKGCCSCGSCCKFDE 1258
Bat-CoV-RaTG13_QHR63300.2_MN996532.2 DLQELGKYEYIKWPWYIWLGFIAGLIAIVMVTIMLCCMTSCCSCLKGCCSCGSCCKFDE 1254
Pangolin-CoV_MP789_QIG55945.1 DLQELGKYEYIKWPWYIWLGFIAGLIAIVMVTIMLCCMTSCCSCLKGCCSCGSCCKFDE 1250
Bat-SARS-like-CoVZXC21_AVP78042.1 DLQELGKYEYIKWPWYVWLGFIAGLIAIVMVTILLCCMTSCCSCLKGCCSCGSCCKFDE 1230
Bat-SARS-like-CoVZC45_AVP78031.1_MG772933.1 DLQELGKYEYIKWPWYVWLGFIAGLIAIVMVTILLCCMTSCCSCLKGCCSCGSCCKFDE 1231
hCoV-19/bat/Yunnan/PrC31/2018|EPI_ISL_1098866 DLQELGKYEYIKWPWYVWLGFIAGLIAIVMVTILLCCMTSCCSCLKGCCSCGSCCKFDE 1231
*****:*****:*****:*****:***** *****:*****

YP_009724390.1_SARS-COV-2/Wuhan-Hu-1 DDSEPVKGVKLYHT 1273
Bat-CoV-RaTG13_QHR63300.2_MN996532.2 DDSEPVKGVKLYHT 1269
Pangolin-CoV_MP789_QIG55945.1 DDSEPVKGVKLYHT 1265
Bat-SARS-like-CoVZXC21_AVP78042.1 DDSEPVKGVKLYHT 1245
Bat-SARS-like-CoVZC45_AVP78031.1_MG772933.1 DDSEPVKGVKLYHT 1246
hCoV-19/bat/Yunnan/PrC31/2018|EPI_ISL_1098866 DDSEPVKGVKLYHT 1246
